APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,542	01/26/2004	Itschak Weissman	200208667-1	1619

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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS, CO 80528

EXAMINER
GUARINO, RAHEL

ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
12/30/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

	Application No.	Applicant(s)
	10/765,542	WEISSMAN ET AL.
Office Action Summary	Examiner	Art Unit	
	RAHEL GUARINO	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>24 August 2009</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>19-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>19,24-26 and 30-32</u> is/are rejected.

7) ☒ Claim(s) <u>20-23,27-29</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in response to communication filed on 8/24/2009.

Response to Arguments

Applicant's arguments with respect to claims 19, 24-26, 30-32 have been considered but

are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
patent by another filed in the United States before the invention by the applicant for patent, except that an
international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
subsection of an application filed in the United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 19, 24-26, 30-32 are rejected under 35 U.S.C. 102(e) as being anticipated by

Lemma et al. US 7,266,466

Re claim 19, Lemma discloses an apparatus for denoising an input noisy signal, the

apparatus comprising (fig.8):

one or more memories $(N_b$ buffers 320); and a controller (24) that receives the noisy signal z

(E[m] noisy part ;col.8 lines 37-40) that includes a number of sequentially ordered symbols (Y_b),

each symbol having a position *(fig.12 shows position of symbols $WII_{[1]}$-$WII_{[Lb]}$); col. 11 lines 19-*

22), stores the noisy signal z *(E[m])* in the one or more memories *(buffers B1-B4; col. 11 lines 30-35)*,receives a signal r *(Y'[n])*, output from a preliminary denoising system *(230)* that operates on the received noisy signal z *(Y'[n])*, that includes a number of sequentially ordered symbols *(Y_b)*,and produces an output signal z' *(W_e[m])* by replacing a symbol within each of a number of different subsequences that occur in the noisy signal z *(E[m])* with a corresponding replacement symbol that the controller computes to provide a minimal estimated signal degradation *(replacing different estimated until the sequential symbol collection is repeated until the end; col.13 lines 46-55; fig.13b shows the position of the symbols)*.

Re claim 24, the apparatus of claim 19 wherein a subsequence z(q) (*(WT1-WT4)* is a number of symbols that precede, follow, or both precede *(increment, moving from left to right)* and follow a symbol Zq at position q in noisy sequence z *(fig.13b; shows the position of the symbols; col.13 lines 36-45)*.

Re claim 25, the apparatus of claim 24 in which the number of symbols in a subsequence is determined by the controller to be sufficiently small to ensure that the number of occurrences of each subsequence is sufficiently large to provide a desired statistical significance to signal degradation estimation (*replacing different estimated until the sequential symbol collection is repeated until the end; col.13 lines 46-55*) and sufficiently large to ensure that an adequate number of subsequence correlations contribute to denoising *(col. 15 lines 17-26)*.

Re claim 26, <u>Lemma</u> discloses a method for denoising an input noisy signal and partially corrected to generate an output signal, the apparatus comprising (fig.8):
one or more memories *(N_b buffers 320)*; and a controller *(24)* that receives the noisy signal z *(E[m] noisy part ;col.8 lines 37-40)* that includes a number of sequentially ordered symbols *(Y_b)*,

each symbol having a position *(fig.12 shows position of symbols WI1[1]..WI1[Lb])*; *col. 11 lines 19-*

22), stores the noisy signal z *(E[m])* in the one or more memories *(buffers B1-B4; col. 11 lines*

30-35), receives a signal r *(Y'[n])*, output from a preliminary denoising system *(230)* that

operates on the received noisy signal z *(Y'[n])*, that includes a number of sequentially ordered

symbols *(Yb)*, and produces an output signal z' *(We[m])* by replacing a symbol within each of a

number of different subsequences that occur in the noisy signal z *(E[m])* with a corresponding

replacement symbol that the controller computes to provide a minimal estimated signal

degradation *(replacing different estimated until the sequential symbol collection is repeated until*

the end; col.13 lines 46-55; fig.13b shows the position of the symbols).

Re claim 30, the method of claim 26 wherein a subsequence z(q) *((WI1-WI4)* is a number

of symbols that precede, follow, or both precede *(increment, moving from left to right)* and

follow a symbol Zq at position q in noisy sequence z *(fig.13b; shows the position of the symbols;*

col.13 lines 36-45).

Re claim 31, the method of claim 26 in which the number of symbols in a subsequence is

determined by the controller to be sufficiently small to ensure that the number of occurrences of

each subsequence is sufficiently large to provide a desired statistical significance to signal

degradation estimation *(replacing different estimated until the sequential symbol collection is*

repeated until the end; col.13 lines 46-55) and sufficiently large to ensure that an adequate

number of subsequence correlations contribute to denoising *(col. 15 lines 17-26)*.

Re claim 32, Lemma discloses a computer readable medium encoded with a data

processing program *(computer program; col. 16 lines 34-37)* for denoising an input noisy signal

and partially corrected to generate an output signal by *(fig.8;col. 2*

lines 37-40):

receiving the noisy signal z *(E[m] noisy part ;col.8 lines 37-40)* that includes a number of

sequentially ordered symbols *(Y_b)*, each symbol having a position *(fig.12 shows position of*

symbols $WI1_{[1]}$-$WI1_{[Lb]}$); *col. 11 lines 19-22)*, storing the noisy signal z *(E[m)]* in the one or more

memories *(buffers B1-B4; col. 11 lines 30-35)*,receiving a signal r *(Y' [n])*, output from a

preliminary denoising system *(230)* that operates on the received noisy signal z *(Y' [n])*, that

includes a number of sequentially ordered symbols *(Y_b)*,and producing an output signal z'

(W_e[m]) by replacing a symbol within each of a number of different subsequences that occur in

the noisy signal z *(E[m])* with a corresponding replacement symbol that the controller computes

to provide a minimal estimated signal degradation *(replacing different estimated until the*

sequential symbol collection is repeated until the end; col.13 lines 46-55; fig.13b shows the

position of the symbols).

Allowable Subject Matter

3.   Claims 20-23, 27-29 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Rahel Guarino whose telephone number is (571)270-1198. The

examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Payne David can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rahel Guarino/
Examiner, Art Unit 2611

/David C. Payne/

Supervisory Patent Examiner, Art Unit 2611